

B1
Unit

a switching TFT controlling a release of the stored charges of the storage capacitor to an external circuit for display of an image of the object, the switching TFT having a gate electrode, an insulating layer on the gate electrode, an active layer on the insulating layer, an ohmic contact layer on the active layer, and dual layered source and drain electrodes that are comprised of first source and drain electrodes made from a transparent conductive material that is in contact with the ohmic contact layer, and from second source and drain electrodes comprised of a metal material on the first source and drain electrodes.

B2 Sub E1

14. (Amended) An optical detecting sensor according to claim 1, wherein the metal material is selected from a group consisting of tungsten, chrome and molybdenum.

B3 Sub C2

15. (Amended) A thin film transistor (TFT) sensor, comprising:

a sensor TFT having a gate electrode and spaced apart first and second sensor electrodes;

and

a switching TFT comprised of:

a gate electrode on a transparent substrate;

an insulating layer over the gate electrode;

a semiconductor layer on the insulating layer and adjacent the gate electrode,

wherein the semiconductor layer includes an active layer and a contact layer;

spaced apart first and second switching electrodes on the semiconductor layer that define a channel region, wherein the second switching electrode electrically contacts the contact layer; and

a storage capacitor having a first storage electrode and a second storage electrode, wherein the second storage electrode of the storage capacitor connects to the first sensor electrode and to the second switching electrode;

wherein the second switching electrode is a dual layer structure comprised of a transparent conducting layer that is in contact with said ohmic contact layer and a non-transparent metal layer over said transparent conductive layer.

16. (Amended) A thin film transistor (TFT) sensor according to claim 15, wherein the non-transparent metal layer also contacts the ohmic contact layer.

18. (Amended) A thin film transistor (TFT), comprising:
a gate electrode on a substrate;
an insulating layer over the gate electrode;
a semiconductor layer on the insulating layer and adjacent the gate electrode, wherein the semiconductor layer includes an active layer and a contact layer; and
spaced apart first and second electrodes that electrically contact the contact layer so as to define a channel region;

wherein the second electrode of the TFT is a dual layer structure comprised of a transparent conducting layer that electrically contacts the contact layer and of a non-transparent metal layer that is disposed over the transparent conducting layer, wherein the non-transparent metal layer extends over an end of the transparent conducting layer to electrically contact the contact layer.